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(54) METHOD FOR CONTROLLING MOLD CLAMPING IN MOTOR-DRIVEN INJECTION MOLDING MACHINES

INJECTION MOLDING MACHINE

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PURPOSE: To make it possible to control a clamping force wherein a fine change in

is needed by providing a clamping force just as set torques in a plurality of stages.

Rotating frame of reference. The resulting force at the last stage is generated by

a motor 16 for clamping based on a set torque at the first stage for a specified

time. Then, after a molten resin is injected in a cavity 3 by means of an injection cylinder 15, the resin is allowed to cool and solidify.

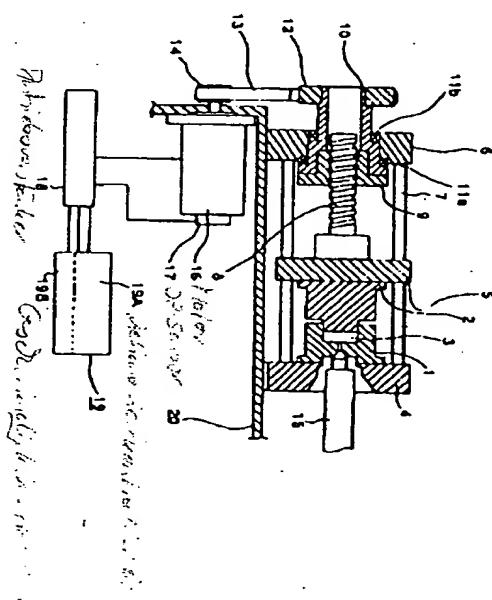
At the beginning of changing to the set torque of the second stage and then cylinder 13, the torque is changed to a set torque of the second stage and

command for a specified time is output from a speed control part 19B and

a torque based on this speed command is added to the above described set torque of the second stage and the motor If for clamping is started to rotate

When this rotation is detected by means of a rotation detector 17, it is changed

to the set torque of the second stage and rotation for a specified time is performed to generate a clamping force of the second stage. Thereafter, in a similar way, a clamping force of each stage is generated to complete one molding cycle.



- 1: fixed mold, 2: movable mold, 4: fixed plate, 5: movable plate, 6: clamping housing, 7: tie bar, 8: ball screw, 9: ball nut, 10: rotating shaft, 11a,1b: bearings, 12: pulley, 13: timing belt, 14: pulley with a flange, 18: driver amplifier, 19: control apparatus, 19A: torque control part, 20: bed

LEGENDE zu den Bibliographiedaten

(54) Titel der Patentanmeldung
(11) Nummer der Jp.-A? Veröffentl.

(22) Anmeldøtag i Japan
(71) Anmelder (72) Et